

United States Department of the Interior



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May 7, 2012

To: Interested Parties

From: Felipe Carrillo, Supervisory Fish Biologist, Red Bluff Fish and Wildlife Office

Subject: Biweekly report (April 22, 2012 - May 5, 2012)

Please find attached preliminary daily estimates of passage, 90% confidence intervals, and fork length ranges of juvenile salmonids sampled at Red Bluff Diversion Dam for the period April 22, 2012 through May 5, 2012. Race designation was assigned using length-at-date criteria.

This report also contains graphical displays of salmonid passage dating back to 2005 for comparison.

Please note that data contained in these reports is subject to revision as this data is preliminary and undergoing QA/QC procedures.

If you have any questions, please feel free to contact me at (530) 527-3043 ext 246

Table 1.— Preliminary estimates of passage by brood-year (BY) and run for unmarked juvenile Chinook salmon and steelhead trout captured by rotary-screw traps at Red Bluff Diversion Dam (RK391), Sacramento River, CA, for the dates listed below. Results include estimated passage, peak river discharge volume, water temperature, turbidity, and fork length (mm) range in parentheses. A dash (-) indicates that sampling was not conducted on that date.

Date	Discharge volume (cfs) ¹	Water temperature (°C)	Water turbidity (NTU)	Estimated passage				
				BY11 Winter	BY11 Spring	BY11 Fall	BY12 Late-Fall	BY12 RBT
4/22/2012	8,450	16.5	_	_	_	_	_	
4/23/2012	8,470	16.9	_	_	_	_	_	_
4/24/2012	8,760	16.1	_	_	_	_	_	_
4/25/2012	8,810	14.4	_	_	_	_	_	_
4/26/2012	8,740	13.9	7.8	0(-)	2,208 (88 – 95)	49,260 (49 – 87)	141 (34 – 35)	87 (56 – 96)
4/27/2012	11,300	13.6	18.1	0 (-)	989 (89 – 102)	86,267 (50 – 88)	1,614 (33 – 37)	0 (-)
4/28/2012	9,660	13.5	6.3	0(-)	2,015 (89 – 113)	60,019 (48 – 88)	5,525 (32 – 38)	55 (25)
4/29/2012	8,670	14.7	3.9	0(-)	836 (90 – 102)	22,501 (46 – 89)	437 (34 – 37)	34 (52)
4/30/2012	8,310	15.3	2.3	0 (-)	738 (90 – 111)	22,105 (44 – 89)	158 (32 – 37)	132 (41 – 50)
5/1/2012	8,120	15.1	2.2	0 (-)	299 (91 – 100)	12,328 (49 – 90)	33 (33)	100 (47 – 49)
5/2/2012	8,050	14.6	_	_	_	_	_	_
5/3/2012	7,920	13.9	_	_	_	_	_	_
5/4/2012	8,740	13.9	_	_	_	_	_	_
5/5/2012	9,080	14.2	_	_	_	_	_	_
Biweekly Total ²				0	16,529	589,120	18,452	952
Biweekly Lower 90% Confidence Interval				0	-42,899	-1,155,116	-45,911	-7,737
Biweekly Upper 90% Confidence Interval				0	75,957	2,333,356	82,815	9,641
Brood Year Total				849,624	175,095	5,059,666	67,505	3,167
Brood year Lower 90% Confidence Interval				594,472	94,096	2,740,815	-2,823	169
Brood year Upper 90% Confidence Interval				1,104,775	256,094	7,378,517	137,832	6,165

¹ Peak daily discharge values do not account for diversions at RBDD and only represent peak flows registered at the Bend Bridge Gauging station (http://cdec2.water.ca.gov/cgi-progs/queryFx?bnd).

² Biweekly totals may be greater than the sum of the daily estimates presented in this table if sampling was not conducted on each day of the biweekly period. A dash (-) denotes those dates. To estimate daily passage for days that were not sampled, we impute missed sample days with the weekly mean value of days sampled within the week.

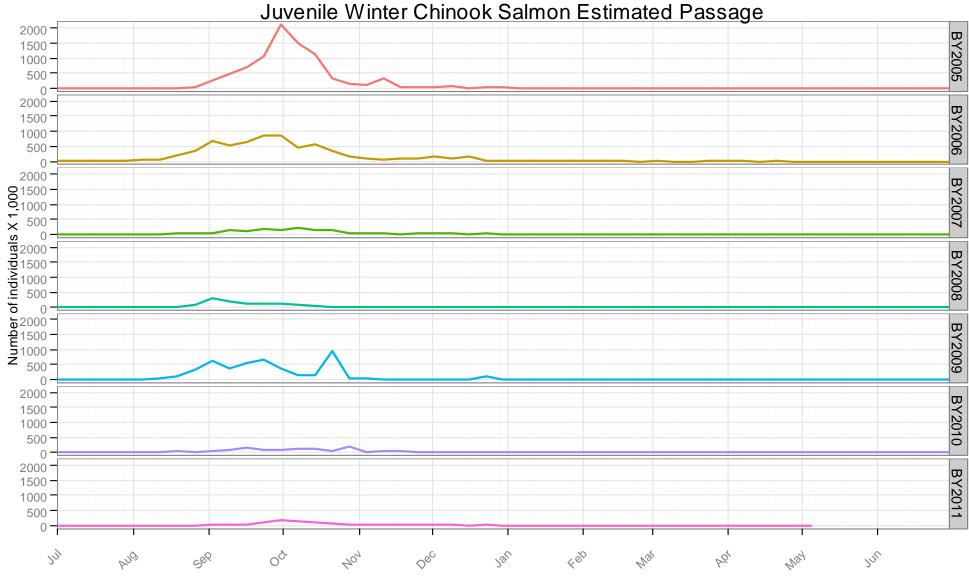


Figure 1. Weekly estimated passage of juvenile winter Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period July 1 2005 to present.

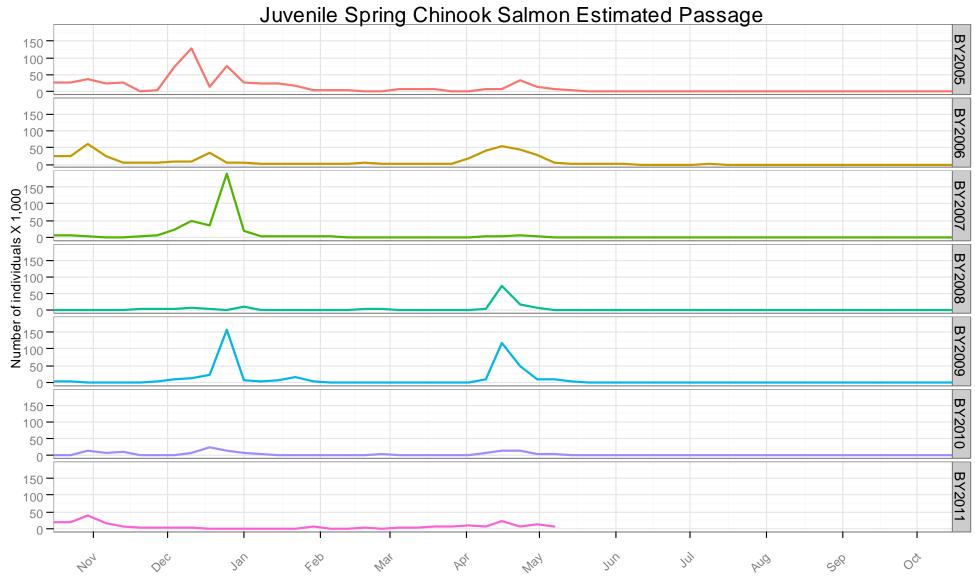


Figure 2. Weekly estimated passage of juvenile Spring Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period October 16 2005 to present.

Juvenile Onchorhyncus mykiss Estimated Passage 25 20 BY2006 15 10 5 0 25 **-**20 **-**15 **-**BY2007 10 -0 BY2008 BY2009 BY2010 0 25 BY2011 20 15 10 -5 -0 -25 - 20 - BY2012 15 **-**10 **-**400 77) May 75/ RUD

Figure 3. Weekly estimated passage of juvenile Rainbow/Steelhead trout at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period January 1 2006 to present.

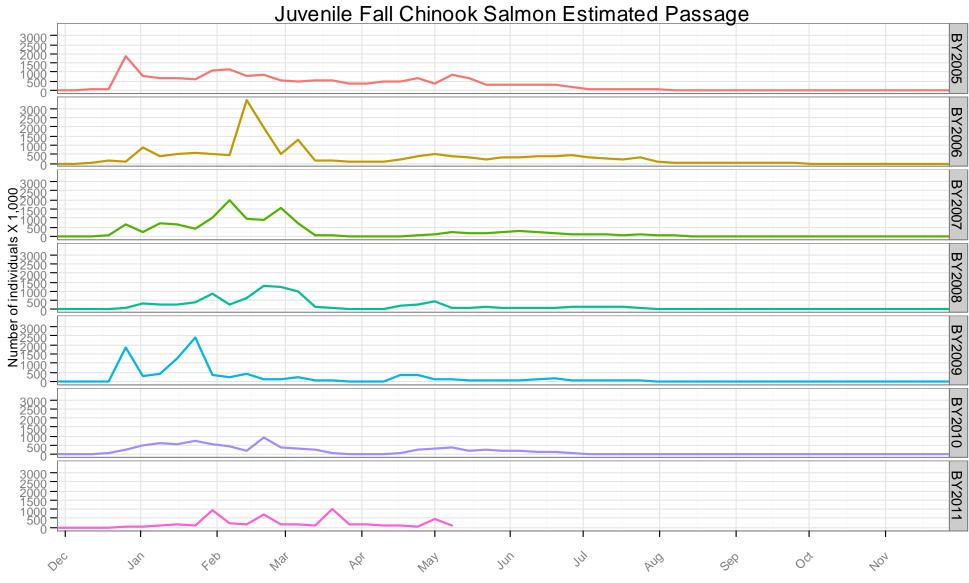


Figure 4. Weekly estimated passage of juvenile Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period December 1 2005 to present.

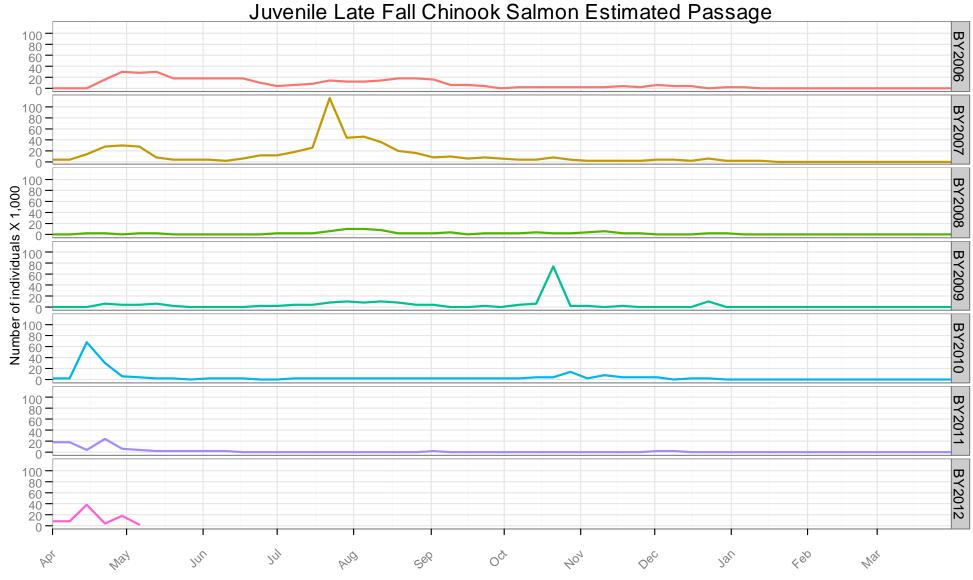


Figure 5. Weekly estimated passage of juvenile Late Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period April 1 2006 to present.

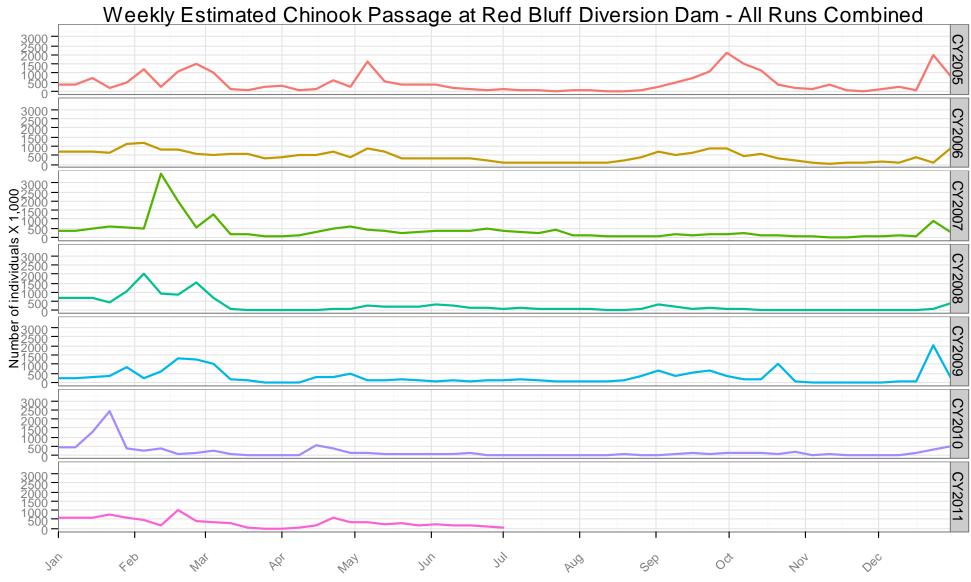


Figure 6. Weekly estimated passage of juvenile Chinook Salmon at Red Bluff Diversion Dam (RK391), by calendar year. Fish were sampled using rotary-screw traps for the period January 1 2005 to June 30 2011